

UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

GARY CURRAN, Individually and on Behalf)	No. 2:16-cv-02263-MCA-LDW
of All Others Similarly Situated,)	
)	
Plaintiff,)	
)	
vs.)	
FRESHPET, INC., RICHARD THOMPSON,)	
RICHARD KASSAR, SCOTT MORRIS and)	
CHARLES A. NORRIS,)	
)	
Defendants.)	
_____)	

EXPERT REPORT OF BJORN I. STEINHOLT, CFA

June 29, 2018

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION AND QUALIFICATIONS	1
II. OVERVIEW OF ASSIGNMENT	2
III. MARKET EFFICIENCY IN A FRAUD-ON-THE-MARKET CONTEXT	4
IV. ANALYSIS OF MARKET EFFICIENCY.....	8
A. Trading on the NASDAQ Global Select Market Supports My Conclusion that Freshpet Traded in an Efficient Market	10
B. <i>Cammer</i> Factor 1: Large Trading Volume Supports My Conclusion that Freshpet Traded in an Efficient Market	10
C. <i>Cammer</i> Factor 2: Analyst Coverage Supports My Conclusion that Freshpet Traded in an Efficient Market	12
D. <i>Cammer</i> Factor 3: The Numerous Liquidity Providers and Institutions Support My Conclusion that Freshpet Traded in an Efficient Market.....	13
E. <i>Cammer</i> Factor 4: Eligibility to File on Form S-3.....	15
F. <i>Cammer</i> Factor 5: Material Market and Company-Specific Information Was Quickly Incorporated into Freshpet’s Stock Price, Supporting My Conclusion that Freshpet Traded in an Efficient Market.....	16
G. Additional <i>Krogman</i> Factor 1: Large Market Capitalization Satisfied.....	21
H. Additional <i>Krogman</i> Factor 2: Small Bid-Ask Spread Satisfied	21
I. Additional <i>Krogman</i> Factor 3: Large Float Satisfied	22
J. Conclusion: The <i>Cammer</i> and <i>Krogman</i> Factors Support My Opinion that Freshpet Traded in an Efficient Market	23
V. USING THE EVENT STUDY FRAMEWORK TO CALCULATE CLASS- WIDE DAMAGES	23
VI. CONCLUSION.....	24

I. INTRODUCTION AND QUALIFICATIONS

1. I am a Managing Director at Caliber Advisors, Inc., a full-service financial valuation and economic consulting firm with offices in San Diego, California and Chicago, Illinois. I have more than 25 years of experience providing capital markets consulting, including analyzing and valuing investments. A summary of my background and qualifications is attached as Exhibit A to this report.

2. Over the past 15 years, I have been retained on numerous occasions to provide expert opinions relating to market efficiency, materiality, loss causation and damages in securities class actions similar to this litigation. More specifically, I have frequently been asked to analyze market efficiency in a reliance context, and have submitted reports to various federal courts outlining my findings, including in *Chin, et al. v. Sonus Networks, Inc., et al.*, No. 04-cv-10294 (D. Mass. Sept. 25, 2007); *Kelleher, et al. v. ADVO, Inc., et al.*, No. 06-cv-01422 (D. Conn. Mar. 30, 2009); *In re Healthsouth Corp. Sec. Litig.*, No. 03-cv-01501 (N.D. Ala. Mar. 31, 2009); *In re Novatel Wireless Sec. Litig.*, No. 08-cv-01689 (S.D. Cal. May 12, 2010); *McGuire v. Dendreon Corp., et al.*, No. 07-cv-00800 (W.D. Wash. May 27, 2010); *Luman, et al. v. Anderson, et al.*, No. 08-cv-00514 (W.D. Mo. Feb. 10, 2012); *Siracusano, et al. v. Matrixx Initiatives, et al.*, No. 04-cv-00886 (D. Ariz. Feb. 27, 2012); *City of Pontiac Gen. Emp.'s Ret. Sys. v. Lockheed Martin Corp., et al.*, No. 11-cv-05026 (S.D.N.Y. Feb. 14, 2012); *T Grocery & Food Emps. Welfare Fund v. Regions Fin. Corp., et al.*, No. 10-cv-02847 (N.D. Ala. June 14, 2012); *Smilovits, et al. v. First Solar Inc., et al.*, No. 12-cv-00555 (D. Ariz. Oct. 8, 2013); *In re Celera Corp. Sec. Litig.*, No. 10-cv-02604 (N.D. Cal. Feb. 25, 2014); *City of Pontiac Gen. Emps' Ret. Sys. v. Wal-Mart Stores, Inc. et al.*, No. 12-cv-05162 (W.D. Ark. Sept. 20, 2016); *Marcus, et al. v. J.C. Penney Co. Inc., et al.* No. 13-cv-00736 (E.D. Tex. Mar. 8, 2017); *Alan Willis, et al. v. Big Lots, Inc.*, No. 12-cv-00604 (S.D. Ohio Mar. 17, 2017) and *In re LendingClub Corporation*

Sec. Litig., No. 16-cv-02627 (N.D. Cal. Oct. 20, 2017).¹ In each of the fifteen matters listed above, my economic analyses demonstrated that the market was efficient and the respective courts granted class certification.

3. I received a Master of International Business degree from the University of San Diego and a Bachelor of Science degree in Computer Science and Engineering from California State University, Long Beach. In addition to my graduate business degree and my engineering degree, I have earned the professional designation Chartered Financial Analyst (“CFA”) awarded by the CFA Institute, and I participate in its continuing education program. The CFA designation is a qualification for finance and investment professionals focusing on investment management and securities analyses of common stock, fixed income and other investments.

4. The compensation for the work performed in this matter is based on the number of hours worked times each analyst’s billable rate. My billable rate is currently \$475 per hour. My compensation is not contingent on the outcome of this case.

II. OVERVIEW OF ASSIGNMENT

5. Plaintiffs’ counsel has requested that I examine and discuss the economic issues relating to whether the market in which Freshpet, Inc. (“Freshpet” or the “Company”) common stock traded between April 1, 2015 and November 11, 2015, inclusive (the “Class Period”), was open, developed, and efficient, in that the market prices during this time period quickly changed to reflect new and material information concerning Freshpet as such information became available. In addition, I have also been asked to briefly explain how class-wide damages can be calculated in this case using a common damages methodology that is consistent with Plaintiffs’ allegations.

¹ Date of respective class certifications in parentheses.

6. My opinions in this matter are based on my professional experience, as well as my review of a substantial amount of information, including: (a) the Amended Complaint, ECF No. 28, dated March 27, 2017 (the “Complaint”); (b) Opinion Denying Defendants’ Motion to Dismiss, ECF No. 36, dated January 12, 2018 (the “Opinion”); (c) public filings by Freshpet with the United States Securities and Exchange Commission (“SEC”) during 2015 and the first half of 2016, including filings on Form 10K, Form 10Q, Form 8K, Schedule 13G, Annual Reports and Proxy Statements; (d) Company press releases and conference call transcripts during 2015; (e) securities analyst reports relating to Freshpet and its industry during 2015; (f) contemporaneous media reports regarding Freshpet and its industry from *Bloomberg* during 2015; (g) price, volume and other trading information for Freshpet common stock and market indices; and (h) articles, court decisions and other relevant information cited in the text, or in footnotes to the text, of this report. A list of the information I relied on to form my opinion in this report is attached hereto as Exhibit B.

7. Based on my review and analysis of the above information, and careful consideration of the market efficiency factors discussed below, it is my opinion that the market in which Freshpet common stock traded throughout the Class Period was impersonal, open, well-developed, and efficient in that the market prices quickly responded to incorporate and reflect new, material information as it became available. Consequently, it is my opinion that it was reasonable for investors to rely on the integrity of the market prices of Freshpet’s common stock during the Class Period as reflecting all publicly available information about the Company.

8. Furthermore, based on my experience as a damages expert and consultant in hundreds of other securities cases similar to this one, it is my opinion that class-wide damages can be calculated in this case using the event study damages framework explained below.

9. This report is based on the information I have reviewed to date. I understand that discovery is still ongoing and that additional information may become available. As a result, I may supplement my report based on such additional evidence.

III. MARKET EFFICIENCY IN A FRAUD-ON-THE-MARKET CONTEXT

10. An efficient market is one that efficiently processes new and material information. In an efficient market, new and material information is quickly incorporated into the stock price as different investors buy and sell based on their respective evaluations of the new information disclosed.² This also means that the resulting stock price will reflect the investors' consensus regarding the stock's value given the available public mix of information.³ The driving force that causes markets to be efficient is the competition amongst investors to quickly analyze and trade on new information as it becomes available. As a result of this competition, riskless profit opportunities are short lived and do not persist in efficient markets. This concept has broad empirical support.⁴

² How quickly new information is incorporated into the stock price depends on how unexpected and complex the information is. Generally, it is reasonable to assume that new and material information is incorporated into a stock price within one day, but there is also some evidence that it may take longer to become fully incorporated, particularly if the information is complex and there is subsequent analyst and media commentary. Dmitry Krivin, Robert Patton, Erica Rose & David Tabak, *Determination of the Appropriate Event Window Length in Individual Stock Event Studies*, 20 (NERA Working Paper, Nov. 4, 2003).

³ This does not mean that all market participants agree on what the true value of the common stock is, as evidenced by the fact that some investors sell as others buy. Rather, it means that the respective investor's view of the stock's true value drives their purchases and sales (*i.e.*, the demand and supply for the stock), which in turn becomes the basis for the consensus price set by the overall market.

⁴ Burton G. Malkiel, *Rethinking the Financial Crisis*, Russell Sage Found., Ch. 4, at 75 (2012) ("At its core, EMH [the Efficient Market Hypothesis] implies that arbitrage opportunities for riskless gains do not exist in an efficiently functioning market and that, if they do appear from time to time, they do not persist. The evidence is clear that this version of EMH is strongly supported by the data.").

11. Perhaps the most compelling evidence demonstrating that open and developed securities markets are efficient is the academic research that, time and time again, has shown that professional fund managers are unable to consistently beat the market. For example, a study by Nobel Laureate Eugene Fama (who is generally credited with coining the term “market efficiency”) and Kenneth French found that actively traded U.S. mutual funds in the aggregate underperformed the market portfolio after costs.⁵ The difficulty of outperforming the market is also illustrated by the following often cited statement by economist Richard Roll:⁶

Over the past decade, I have attempted to exploit many of the seemingly most promising “inefficiencies” by actually trading significant amounts of money according to a trading rule suggested by the “inefficiencies.” . . .

. . . I have never yet found one that worked in practice, in the sense that it returned more after cost than a buy-and-hold strategy.⁷

12. While financial economists may hold different views regarding various aspects of market efficiency, they generally all agree that securities traded in open and developed markets quickly incorporate and reflect new information as it becomes available. As noted in one academic article:

Financial economists have shown repeatedly that stock prices react quickly to the release of important new information; though they may differ in their interpretations of this evidence, they do agree it exists. Even prominent financial

⁵ Eugene F. Fama & Kenneth R. French, *Luck Versus Skill in the Cross-Section of Mutual Fund Returns*, 65 The J. of Fin. 1915 (2010) (“The aggregate portfolio of actively managed U.S. equity mutual funds is close to the market portfolio, but the high costs of active management show up intact as lower returns to investors. Bootstrap simulations suggest that few funds produce benchmark-adjusted expected returns sufficient to cover their costs.”).

⁶ According to one common finance text book, Richard Roll is characterized as someone who “probably knows as much as anyone about market anomalies.” Richard A. Brealey, Stewart C. Myers & Franklin Allen, *Principles of Corporate Finance*, McGraw-Hill (11th ed. 2013), Ch. 13 at 329.

⁷ Richard Roll, *What Every CFO Should Know About Scientific Progress in Financial Economics: What Is Known and What Remains to be Resolved*, 23 Fin. Mgmt. 69, 71 (1994).

economists with divergent interpretations of the evidence on market efficiency share similar views on how stock prices react to new information.⁸

13. For securities class actions, there are two important implications of an efficient market. First, in an efficient market it is reasonable for investors to rely on the integrity of the market price. As explained in a commonly used finance textbook: “[i]n an efficient market you can trust prices,” because they quickly impound new and material information, meaning that “in an efficient market, there is no way for most investors to achieve consistently superior rates of return.”⁹ This implication is important for the fraud-on-the-market presumption. In *Amgen Inc. et al. v. Conn. Ret. Plans and Trust Funds*, the U.S. Supreme Court explained:

The fraud-on-the-market theory rests on the premise that certain well developed markets are efficient processors of public information. In such markets, the “market price of shares” will “reflec[t] all publicly available information.” Few investors in such markets, if any, can consistently achieve above-market returns by trading based on publicly available information alone, for if such above-market returns were readily attainable, it would mean that market prices were not efficiently incorporating the full supply of public information. See R. Brealey, S. Myers, & F. Allen, *Principles of Corporate Finance* 330 (10th ed. 2011) (“[I]n an efficient market, there is no way for most investors to achieve consistently superior rates of return.”).

In *Basic*, we held that if a market is shown to be efficient, courts may presume that investors who traded securities in that market relied on public, material misrepresentations regarding those securities. This presumption springs from the very concept of market efficiency. If a market is generally efficient in incorporating publicly available information into a security’s market price, it is reasonable to presume that a particular public, material misrepresentation will be reflected in the security’s price. Furthermore, it is reasonable to presume that most investors – knowing that they have little hope of outperforming the market in the long run based solely on their analysis of publicly available information – will rely on the security’s market price as an unbiased assessment of the security’s value in light of all public information.¹⁰

⁸ Jonathan Macey, Geoffrey Miller, Mark Mitchell & Jeffry Netter, *Lessons From Financial Economics: Materiality, Reliance, and Extending the Reach of Basic v. Levinson*, 77 Va. L. Rev. 1017, 1026 (1991).

⁹ Brealey, Myers & Allen, *Principles of Corporate Finance*, Ch. 13 at 337.

¹⁰ *Amgen*, 568 U.S. 455, 461-62 (2013) (citations omitted) (alteration in original).

14. In its 2014 opinion in *Halliburton Co. v. Erica P. John Fund* (“*Halliburton II*”) the U.S. Supreme Court reaffirmed the fraud-on-the-market presumption, and further clarified:

[T]he *Basic* Court acknowledged [debate amongst academics] and declined to enter the fray, declaring that “[w]e need not determine by adjudication what economists and social scientists have debated through the use of sophisticated statistical analysis and the application of economic theory.” To recognize the presumption of reliance, the Court explained, was not “conclusively to adopt any particular theory of how quickly and completely publicly available information is reflected in market price.” The Court instead based the presumption on the fairly modest premise that “market professionals generally consider most publicly announced material statements about companies, thereby affecting stock market prices.” . . .

The academic debates discussed by *Halliburton* have not refuted the modest premise underlying the presumption of reliance. Even the foremost critics of the efficient-capital-markets hypothesis acknowledge that public information generally affects stock prices.¹¹

15. Second, in an efficient market, the impact of the alleged misrepresentations can be estimated, and class-wide damages quantified, based on an analysis of the market prices using an event study.¹² This is so because the “alleged misrepresentations and omissions, whether material or immaterial, would be so equally for all investors composing the class,” and that, therefore, the Class “will prevail or fail in unison.”¹³ I will explain in greater detail how damages can be quantified on a class-wide basis in a separate section below.

¹¹ *Halliburton II*, _U.S._, 134 S. Ct. 2398, 2410 (2014) (citations omitted) (some alteration in original).

¹² See, e.g., Mark L. Mitchell & Jeffry M. Netter, *The Role of Financial Economics in Securities Fraud Cases: Applications at the Securities and Exchange Commission*, 49 Bus. Law 545 (1994).

¹³ *Amgen*, 568 U.S. at 459-60.

16. In *Cammer v. Bloom*, the court analyzed the criteria that should be evaluated in determining whether a market is efficient.¹⁴ The *Cammer* court asked for evidence that the stock traded in an open and developed market, and provided five factors to assess market efficiency, including evidence showing that the market participants had the sophistication to understand the economic implications of new and material information (market makers/institutions), that they analyzed the information (analyst coverage), and that they traded on the information (trading volume). In my experience, and from an economic point of view, I find that these factors are very useful in determining whether a market was open and developed, and would be expected to efficiently process new, material information. As discussed above, academic research has shown that equity securities that trade in such markets quickly react to new and material information so that it is extremely difficult, if not impossible, to consistently outperform the overall market.¹⁵ Consequently, in such markets, it would be reasonable to rely on the integrity of the market prices. *Cammer* also explained that it would be “helpful” to demonstrate that the stock price in question quickly reacted to new and material company-specific information, as this represents direct evidence of market efficiency. Below, I will review the *Cammer* factors used to assess market efficiency.

IV. ANALYSIS OF MARKET EFFICIENCY

17. In *Cammer*, the court provided some general guidelines as to how to analyze market efficiency in a fraud-on-the-market context. *Cammer* focused on whether the market was open and developed, and provided five specific factors to analyze. The first four factors are so-called indirect factors as they provide evidence that the competitive environment which

¹⁴ *Cammer*, 711 F. Supp. 1264 (D.N.J. 1989).

¹⁵ See Malkiel (2012), *supra* fn. 4; Fama & French (2010), *supra* fn. 5; and Macey, Miller, Mitchell & Netter (1991), *supra* fn. 8.

facilitates market efficiency was in place. From an economic point of view, the indirect factors are, by themselves, commonly viewed to be sufficient to establish market efficiency in a reliance context.¹⁶ Courts have also recognized this economic reality.¹⁷

18. *Cammer* also explained that a fifth factor demonstrating “cause and effect” would be “helpful” because it provides direct evidence of market efficiency.¹⁸ Below, I will discuss the *Cammer* factors in the context of Freshpet’s common stock price. In addition, I will discuss three additional factors included in *Krogman v. Sterritt* that some courts also consider.¹⁹

¹⁶ Bradford Cornell & James C. Rutten, *Market Efficiency, Crashes and Securities Litigation*, 81 Tulane L. Rev. 443, 457 (2006) (“There is almost no dispute, however, that for securities traded in ‘open and developed’ markets as measured by the *Cammer* and *Krogman* criteria, it is reasonable for all but the most sophisticated investors to rely on the market prices. There is thus little dispute that with respect to such securities, reliance on the integrity of the market prices (and thus on the defendants’ statements) is appropriately presumed.”).

¹⁷ For example, the recent Second Circuit opinion in *Barclays* stated that “district courts in this and other Circuits regularly consider five factors first set forth in *Cammer v. Bloom*,” with the “first four *Cammer* factors [being] ‘particularly valuable in situations where direct evidence does *not* entirely resolve the question’ of market efficiency,” and explaining that “a plaintiff seeking to demonstrate market efficiency need not always present direct evidence of price impact through event studies.” *Waggoner v. Barclays PLC*, 875 F.3d 79, 94, 97 (2d Cir. 2017) (citation omitted and emphasis in original).

¹⁸ That said, *Cammer* does not appear to require that *Cammer* factor five necessarily be satisfied (at least not if the other factors are satisfied), stating: “As previously noted, one of the most convincing ways to demonstrate efficiency would be to illustrate, over time, a cause and effect relationship between company disclosures and resulting movements in stock price. However, as mentioned, such a showing . . . would be difficult because it would require exploration of materiality and causation issues. . . . [P]laintiffs will not be required to delve into such issues at this early stage.” *Cammer*, 711 F. Supp. at 1291-92.

¹⁹ *Krogman*, 202 F.R.D. 467 (N.D. Tex. 2001). These additional factors are: (a) market capitalization, which for Freshpet exceeded \$280 million during the Class Period; (b) bid-ask spread, which for Freshpet’s common stock averaged approximately \$0.03 per share during the Class Period; and (c) the public float, or shares in public hands (*i.e.*, excluding shares owned by insiders), which for Freshpet exceeded 11.8 million shares with a market value of at least \$168 million during the Class Period. As explained below, all of these additional factors are consistent with Freshpet trading in an efficient market.

A. Trading on the NASDAQ Global Select Market Supports My Conclusion that Freshpet Traded in an Efficient Market

19. During the entire Class Period, Freshpet's common stock was listed and traded on the NASDAQ Global Select Market under the ticker symbol "FRPT." The NASDAQ Global Select Market (formerly known as the NASDAQ National Market) represents the segment of the NASDAQ Global Market with the highest initial listing standards and is commonly presumed to be an efficient market.²⁰

20. The fact that Freshpet's common stock traded on the NASDAQ Global Select Market supports my opinion that it traded in an efficient market. This is consistent with evidence that few, if any, professional fund managers investing in the U.S stock market (NYSE and NASDAQ) are able to outperform the market on a consistent basis.²¹

B. Cammer Factor 1: Large Trading Volume Supports My Conclusion that Freshpet Traded in an Efficient Market

21. The first *Cammer* factor relates to Freshpet's trading volume.²² In its opinion, the *Cammer* court explained:

The reason the existence of an actively traded market, as evidenced by a large weekly volume of stock trades, suggests there is an efficient market is because it implies significant investor interest in the company. Such interest, in turn,

²⁰ *Cammer*, 711 F. Supp. at 1292 (quoting Bromberg & Lowenfels, 4 *Securities Fraud and Commodities Fraud*, §8.6 (1988)) ("We think that, at a minimum, there should be a presumption – probably conditional for class determination – that certain markets are developed and efficient for virtually all the securities traded there: the New York and American Stock Exchanges, the Chicago Board Options Exchange and the NASDAQ National Market System.").

²¹ *Supra*, fn. 5.

²² Academic research has found that trading volume is one factor "that systematically differentiate[s] between efficiently and inefficiently priced stocks." Brad M. Barber, Paul A. Griffin & Baruch Lev, *The Fraud-on-the-Market Theory and the Indicators of Common Stocks' Efficiency*, 19 J. of Corp. L. 285 (1994).

implies a likelihood that many investors are executing trades on the basis of newly available or disseminated corporate information.²³

22. During the Class Period, Freshpet had a total reported trading volume of more than 72 million shares with a dollar trading volume exceeding \$1.14 billion. During this same time period, the average reported daily trading volume for Freshpet exceeded 458,000 shares with an average daily dollar volume of approximately \$7.3 million. *See* Exhibit C, attached hereto. This demonstrates that there was “significant investor interest” in the stock, and that there were willing buyers and sellers who provided liquidity for the stock. The substantial amount of daily trading supports my opinion that Freshpet traded in an efficient market during the Class Period.

23. One authority quoted in *Cammer* stated that “[t]urnover measured by average weekly trading of 2% or more of the outstanding shares would justify a strong presumption that the market for the security is an efficient one; 1% would justify a substantial presumption.”²⁴ During the Class Period, Freshpet’s average weekly trading volume (2.24 million shares) as a percentage of its shares outstanding (as high as 33.5 million shares) results in a weekly turnover of approximately 6.7%, thereby substantially exceeding the 2% benchmark used by some courts to justify a strong presumption of market efficiency. The Company’s high share turnover supports my opinion that Freshpet traded in an efficient market during the Class Period.

²³ *Cammer*, 711 F. Supp. at 1286.

²⁴ *Cammer*, 711 F. Supp. at 1293 (quoting Bromberg & Lowenfels, §8.6, *supra* fn. 18).

C. *Cammer* Factor 2: Analyst Coverage Supports My Conclusion that Freshpet Traded in an Efficient Market

24. The second *Cammer* factor relates to the number of securities analysts that followed and reported on Freshpet.²⁵ In its opinion, the *Cammer* court explained:

The existence of such analysts would imply, for example, the [Company] reports were closely reviewed by investment professionals, who would in turn make buy/sell recommendations to client investors. In this way the market price of the stock would be bid up or down to reflect the financial information contained in the [Company] reports, as interpreted by the securities analysts.²⁶

25. Analyst coverage refers to securities analysts who follow, analyze and report on a company to their clients.²⁷ Many firms do not have any analyst coverage, and are therefore more likely to trade in less efficient markets than firms with analyst coverage.²⁸ Freshpet, on the other hand, had several analyst firms that followed the Company, including the following 10 firms: SunTrust, William Blair, Stifel, Oppenheimer, Baird, Credit Suisse, Wedbush, Canaccord,

²⁵ Academic research has found that analyst coverage is one factor “that systematically differentiate[s] between efficiently and inefficiently priced stocks.” Barber, Griffin & Lev, *supra* fn. 22.

²⁶ *Cammer*, 711 F. Supp. at 1286.

²⁷ Analysts providing analysis and recommendations to their clients are commonly referred to as sell-side analysts. In addition, public companies are also followed by a presumably much larger number of so-called buy-side analysts, or analysts who work for investment firms and whose research is generally used internally by these firms to make investment decisions. The number of buy-side analysts of a particular company is not publicly known.

²⁸ See fn. 25. One study found that approximately 35% of a large sample of publicly traded firms in the U.S. did not have any analyst coverage. Fang (Frank) Yu, *Analyst Coverage and Earnings Management*, 88 J. of Fin. Econ. 245 (2008). Another study found that the median and mean number of analysts covering a company was one and five, respectively. Pandej Chintrakarn, Pornsit Jiraporn, Young S. Kim and Jang Chul Kim, *Does Corporate Governance Quality Affect Analyst Coverage? Evidence from the Institutional Shareholder Services (ISS)*, SSRN Working Paper, <http://ssrn.com/abstract=2458841>.

Stephens and Goldman Sachs.²⁹ So far, I have obtained 28 analyst reports covering Freshpet issued by some of these brokerage firms from April 2015 through November 2015.³⁰

26. In addition, during the Class Period, Freshpet also presented and answered questions at different analyst conferences, including the 15th Annual Oppenheimer Consumer Conference (June 24, 2015), the 35th Annual Canaccord Genuity Growth Conference (August 13, 2015) and the Stifel 2015 Consumer Conference (September 17, 2015). Furthermore, a search for Freshpet media reports on *Bloomberg* (FRPT US Equity, CN), a major news source to the investment industry, uncovered more than 280 media reports from April 2015 through November 2015. This demonstrates that the Company's press releases and other Company events were widely followed and discussed in the media. The availability of such relevant Company-specific information facilitates market efficiency.

27. The information above about the analyst and news coverage of the Company during the relevant time period supports my opinion that Freshpet common stock traded in an efficient market during the Class Period.

D. *Cammer* Factor 3: The Numerous Liquidity Providers and Institutions Support My Conclusion that Freshpet Traded in an Efficient Market

28. The third *Cammer* factor relates to the number of arbitrageurs, market makers and/or other sophisticated investors such as institutional investors, who traded Freshpet. In its opinion, the *Cammer* court explained:

Third, it could be alleged the stock had numerous market makers. The existence of market makers and arbitrageurs would ensure completion of the market mechanism; these individuals would react swiftly to company news and

²⁹ *Bloomberg* (FRPT Equity ANR).

³⁰ Exhibit B.

reported financial results by buying or selling stock and driving it to a changed price level.³¹

29. For shares traded on NASDAQ, the matching of buy and sell orders are made by market makers. When an order imbalance occurs, market makers increase the demand for a stock by lowering the ask price, or increase the supply of a stock by increasing the bid price. As investors react to new information, this mechanism ensures that the price of the security changes to reflect investors' collective interpretation of the new information. Consequently, market makers provide a key function in facilitating market efficiency. According to *Bloomberg*, out of more than 115 market makers or supplemental liquidity providers for Freshpet stock, there were nine with volume of at least one million shares during the Class Period.³² The presence of numerous market makers supports my opinion that Freshpet common stock traded in an efficient market during the Class Period.

30. The sophisticated investors discussed in *Cammer* are investors who are able to quickly evaluate new information and understand its potential impact on the value of a security, and who then take appropriate investment actions causing the new information to become reflected in the price of the security. The presence of sophisticated investors is an important factor ensuring that a security is traded in an efficient market.³³ Institutional investors are such sophisticated investors. Consequently, I examined the available information on institutional ownership of Freshpet common stock during 2015. This information is generally only available on a quarterly basis, and is therefore not a complete list of all sophisticated investors who may

³¹ *Cammer*, 711 F. Supp. at 1286-87.

³² *Bloomberg*: FRPT BAS April 2015 through November 2015.

³³ Academic research has shown that efficiently traded firms tend to have higher institutional ownership than inefficiently traded firms. Barber, Griffin & Lev, *supra* fn. 22.

have owned Freshpet common stock during the Class Period. According to the available information, there were at least 187 institutional investors that reportedly owned between 33.6 million and 38.3 million Freshpet shares each quarter during the Class Period. See Exhibit D, attached hereto. The substantial presence of sophisticated institutional investors supports my opinion that Freshpet's common stock traded in an efficient market.

E. Cammer Factor 4: Eligibility to File on Form S-3

31. The fourth *Cammer* factor relates to Freshpet's eligibility to file on Form S-3.

According to the *Cammer* court:

Fourth, as discussed, it would be helpful to allege the Company was entitled to file an S-3 Registration Statement in connection with public offerings or, if ineligible, such ineligibility was only because of timing factors rather than because the minimum stock requirements set forth in the instructions to Form S-3 were not met. Again, it is the number of shares traded and value of shares outstanding that involve the facts which imply efficiency.³⁴

32. To be eligible to file Form S-3, a company has to be an SEC reporting company for at least 12 months, and have \$75 million in voting stock held by non-affiliates (average during 60-day period prior to filing). Freshpet went public in November of 2014, and therefore had not been an SEC reporting company for at least 12 months prior to the Class Period. However, the market value of the Company's common stock held by non-affiliates exceeded the \$75 million threshold during the entire Class Period. It is this latter benchmark that the *Cammer* court specifically determined implied efficiency, stating that "it is the number of shares traded and value of shares outstanding that involve the facts which imply efficiency."³⁵ During the Class Period, Freshpet met this benchmark referenced in *Cammer* factor four.

³⁴ *Cammer*, 711 F. Supp. at 1287.

³⁵ *Id.*

F. *Cammer* Factor 5: Material Market and Company-Specific Information Was Quickly Incorporated into Freshpet's Stock Price, Supporting My Conclusion that Freshpet Traded in an Efficient Market

33. The direct test of market efficiency relates to whether a stock price quickly reacts to unexpected new material information. While *Cammer* factors one through four discussed above provide evidence that the competitive environment that facilitates market efficiency was in place during the Class Period, the last *Cammer* factor calls for some empirical evidence that Freshpet's common stock price quickly incorporated new and material information. More specifically, in its opinion, the *Cammer* court explained:

Finally, it would be helpful to a plaintiff seeking to allege an efficient market to allege empirical facts showing a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price. This, after all, is the essence of an efficient market and the foundation for the fraud on the market theory.³⁶

34. The analysis of the impact of new information (the event, such as a financial release) on securities prices is generally performed using an event study.³⁷ The event study first determines the statistical relationship between the stock price returns of the company and the returns on market and/or industry indices during a control period using a regression analysis.³⁸ In this case, I reviewed Freshpet's 2016 Form 10-K, filed with the SEC on March 14, 2017, to

³⁶ *Cammer*, 711 F. Supp. at 1287.

³⁷ For an explanation on the event study methodology, as used in securities fraud cases, *see* Mitchell & Netter (1994), *supra* fn. 12.

³⁸ For my purposes, I used all the trading days during 2015, excluding earnings release dates (the events), as the control period. I also assessed the statistical significance of days other than the earnings release days using this same control period, recognizing that further refinement might be needed when analyzing damages. My analysis was performed for the purpose of analyzing market efficiency, and therefore it was not necessary to identify and exclude all fraud-related days from the control period. In other words, the event analysis I constructed to analyze market efficiency may have to be modified somewhat prior to analyzing damages and the price impact of any alleged fraudulent conduct.

determine what indices the Company considered to be its market and/or industry indices for purposes of disclosing its 5-year performance graph comparisons. In its 10-K filing, the Company identified the NASDAQ Composite index and the Russell 3000 index for purposes of measuring its 5-year performance.³⁹ Consequently, I ran a regression using these two indices to predict Freshpet's price returns on the event days I analyzed. Then, the actual stock price return on the event day analyzed was compared to the return predicted by the regression to determine the excess (or abnormal) return, *i.e.*, the stock's return on the event day net of market and/or industry factors. The excess return can also be used to determine the so-called p-value, the probability of an equal or greater absolute return occurring randomly. A price movement with a p-value of 5% or less is defined as being statistically significant at the 5% level.⁴⁰ Attached as Exhibit E are the statistical results of my analyses for each day during the Class Period.⁴¹

35. *Cammer* factor five calls for empirical evidence that shows that new and material information was quickly incorporated into Freshpet's stock price during the Class Period. To analyze whether new and material market information was quickly incorporated into Freshpet's stock price, I ran a regression of Freshpet's returns against the NASDAQ Composite index for the entire 2015. Based on this regression, I found that there was a statistically significant

³⁹ Freshpet 2016 Form 10-K, filed with the SEC on March 14, 2017, at 24-25.

⁴⁰ Similarly, a price movement with a p-value of 1% or less is defined as being statistically significant at the 1% level, and a price movement with a p-value of 10% or less is defined as being statistically significant at the 10% level.

⁴¹ The daily statistical analysis determines the so-called t-statistic, or the abnormal return on a particular day divided by the standard deviation (or standard error) during the control period. The t-statistic can then be translated into a p-value, or probability of an equal or greater absolute return occurring randomly. A t-statistic with an absolute value greater than 1.96 is defined as being statistically significant at the 5% level, using a two-tailed test (testing for large negative and large positive returns). A t-statistic with a value greater than 1.645 (or less than -1.645) is defined as being a statistically significant price increase (or decrease) at the 5% level, using a one-tailed test (testing either for large positive or for large negative returns, but not both).

relationship between the NASDAQ Composite index and Freshpet, indicating that new and material market information was quickly incorporated into the Company's stock price. Specifically, the t-statistic associated with the NASDAQ Composite in my regression analysis was 4.39, far exceeding the 1.96 benchmark for statistical significance at the 5% level.⁴² In other words, the statistical evidence demonstrates that new and material market information was quickly incorporated into Freshpet's stock price.

36. In this case, to assess "cause and effect" of Company-specific information, I analyzed whether Freshpet's four financial releases during the Class Period impacted the stock price, as suggested in *Cammer*.⁴³ Financial releases generally provide new information to investors and therefore they have a greater likelihood of materially altering the public mix of information, as noted in *Cammer* above.⁴⁴ In this case, each of the four financial releases was followed by larger than normal price movements on volume at least twice the median during the Class Period.⁴⁵ The smallest price movement following one of the four financial releases occurred on the first day of the Class Period, April 1, 2015, and had a two-tailed p-value of 12.7%.⁴⁶ In other words, the probability of an equal or greater absolute return occurring

⁴² I also ran the regression using the Russell 3000 index, resulting in a t-statistic of 4.44, again significantly greater than the 1.96 benchmark for statistical significance at the 5% level.

⁴³ Because the November 11, 2015 financial release occurred after the market closed, I am also including the price reaction to this financial release that occurred on November 12, 2015 (technically the day after the end of the Class Period) in my analysis.

⁴⁴ That said, just because the Company announced earnings does not mean that one would necessarily expect there to be a statistically significant price increase or decrease because the totality of the information disclosed could still be interpreted by the market as being neutral.

⁴⁵ Exhibit E.

⁴⁶ A two-tailed p-value does not take into account whether the price movement is positive or negative and is appropriate for this analysis because it does not include any analysis of the information disclosed. An alternative analysis would be to analyze the impact of possible

randomly was only 12.7%. This price movement, although much larger than an average price movement, does not, by itself, prove “cause and effect” at the 5% level. On the other hand, analyzing all of the four financial releases in combination does. The probability of four consecutive financial releases having p-values of 12.7% or less occurring randomly is only 0.03% ($12.7\%^4$), *i.e.*, it is highly unlikely to have occurred simply by chance. In fact, the probability of flipping a coin 10 times and having it come up heads each time (p-value 0.1%) is more than 3 times greater than the probability of four consecutive financial releases having p-values of 12.7% or less (p-value 0.03%). Consequently, the statistical evidence is very strong that new and material Company-specific information contained in the financial releases during the Class Period was quickly incorporated into Freshpet’s stock price.

37. In addition, I also analyzed the “cause and effect” relating to the final earnings announcement that ended the Class Period by: (a) identifying the relevant information disclosed, (b) determining the expected directional impact on the stock price, if any, and (c) testing whether Freshpet’s stock price reacted as one would expect in an efficient market.⁴⁷ On November 11, 2015, after the market closed, Freshpet reported weaker than expected 3Q2015 results and lowered its full-year guidance, impacted by weaker fridge growth and softer than expected gross margins. A November 11, 2015 Oppenheimer analyst report stated: “Earlier this evening FRPT

positive (or negative) information, in which case a one-tailed p-value would be used. The one-tailed p-value on April 1, 2015 was 6.3% (*i.e.*, the price increase was statistically significant at the 10% level using a one-tailed test).

⁴⁷ In addition, I will note that Plaintiffs also allege that on August 11, 2015, after the market closed, the Company “disclosed that its gross margin gains throughout the rest of 2015 would be more modest than it had predicted earlier in the year, and pointed to the lower end of its 15,100 to 15,600 Fridge range,” and that, as a result, its stock price declined on August 12, 2015. Opinion at 14, *see also* Complaint, ¶¶132-133. While there was also positive information disclosed on August 12, 2015, Freshpet’s stock price did decline almost 6%, and this price decline was statistically significant at the 5% level (one-tailed p-value 3.2%). Exhibit E, page 4.

reported weaker than expected Q3 results and lowered full-year guidance. A combination of weaker fridge growth and softer than expected gross margins contributed to the sales and EBITDA shortfall. . . . [O]ur enthusiasm for the FRPT investment story remains muted at least in the near term until we get better visibility on fridge growth.” A November 11, 2015 Suntrust Robertson Humphrey analyst report stated: “FRPT reported disappointing 3Q15 results and lowered its 2015 guidance. We are lowering our 2015, 2016, and 2017 EBITDA estimates to \$10.5M, \$22.7M, \$36.9M, respectively (from \$14.3M, \$33.5M, \$44.2M).” A November 11, 2015 William Blair analyst report stated: “The third-quarter loss of \$0.06 per share compared with our estimate of a loss of \$0.05, consensus of loss of \$0.02, and a loss of \$0.18 a year ago. . . . Management guided to 2015 EBITDA of \$10 million to \$11 million (prior view was \$12.5 million to \$14 million) with sales of \$115.5 million to \$117 (prior range was \$117 million to \$119.5 million). We lowered our EBITDA estimates by \$3 million, to \$10 million for 2015; and by \$5 million, to \$22 million for 2016.”

38. In an efficient market, the above negative information would be expected to cause Freshpet’s stock price to decline. Following the Company’s 3Q2015 financial release, its stock price declined from \$8.37 per share on November 11, 2015 to \$6.28 per share on November 12, 2015, a decline of \$2.09 per share (or a decline of 23.7% net of market), a decrease that was statistically significant at the 1% level.⁴⁸ This price decline was also the largest price decline during all of 2015. In other words, the new information disclosed was quickly analyzed, and Freshpet’s stock price quickly reacted to the negative information disclosed, as one would expect in an efficient market.

⁴⁸ Exhibit E, page 5.

39. Based on the above, it is my opinion that new and material market and Company-specific information was quickly analyzed by market participants, who then traded on the information, resulting in the information efficiently becoming reflected in Freshpet's stock prices during the Class Period.

G. Additional *Krogman* Factor 1: Large Market Capitalization Satisfied

40. The first additional *Krogman* factor relates to the total market capitalization of Freshpet's equity. In its opinion, the *Krogman* court stated:

Market capitalization, calculated as the number of shares multiplied by the prevailing share price, may be an indicator of market efficiency because there is a greater incentive for stock purchasers to invest in more highly capitalized corporations.⁴⁹

41. During the entire Class Period, Freshpet's market capitalization exceeded \$280 million at all times.⁵⁰ This large market capitalization is significantly greater than the \$75 million benchmark in *Cammer* factor four, and would provide a sufficient economic incentive for the Company's common stock purchasers to invest in Freshpet. Based on the above, it is my opinion that the additional *Krogman* factor one has been satisfied.

H. Additional *Krogman* Factor 2: Small Bid-Ask Spread Satisfied

42. The second additional *Krogman* factor relates to Freshpet's bid-ask spread. In its opinion, the *Krogman* court stated:

The bid-ask spread is the difference between the price at which investors are willing to buy the stock and the price at which current stockholders are willing to sell their shares. A large bid-ask spread is indicative of an inefficient market, because it suggests that the stock is too expensive to trade.⁵¹

⁴⁹ *Krogman*, 202 F.R.D. at 478.

⁵⁰ *Bloomberg* FRPT US Equity, "CUR_MKT_CAP".

⁵¹ *Krogman*, 202 F.R.D. at 478.

43. During the Class Period, Freshpet's average bid-ask spread was less than \$0.03 per share, or roughly 0.15% of the closing price.⁵² By comparison, in 1991, two years following the *Cammer* decision (1989), the vast majority of dollar spreads on the NASDAQ exceeded one-quarter (\$0.25), or significantly larger than the average \$0.03 per share dollar spread for Freshpet.⁵³ In other words, Freshpet's spread was so low that it would not make its common stock "too expensive" for investors to trade. Based on the above, it is my opinion that the additional *Krogman* factor two has been satisfied.

I. Additional *Krogman* Factor 3: Large Float Satisfied

44. The third additional *Krogman* factor relates to Freshpet's float, or shares in public hands. In its opinion, the *Krogman* court stated:

In determining efficiency, courts also consider the percentage of shares held by the public, rather than insiders. "Because insiders may have private information that is not yet reflected in stock prices, the prices of stocks that have greater holdings by insiders are less likely to accurately reflect all available information about the security."⁵⁴

45. Based on *Bloomberg*, Freshpet's float, or shares in public hands, exceeded 11.8 million shares, with a market value of at least \$168 million, during the Class Period. In other words, the market value of the public float (more than \$168 million throughout the Class Period) exceeds the \$75 million benchmark in *Cammer* factor four, thereby providing sufficient economic incentive for Freshpet's common stock holders to invest in the Company. Based on the above, it is my opinion that the additional *Krogman* factor three has been satisfied.

⁵² *Bloomberg* FRPT US Equity.

⁵³ William G. Christie & Paul H. Schultz, *Why do NASDAQ Market Makers Avoid Odd-Eighth Quotes?*, 49 J. of Fin. 1819 (1994).

⁵⁴ *Krogman*, 202 F.R.D. at 478 (quoting defendants' expert).

J. Conclusion: The *Cammer* and *Krogman* Factors Support My Opinion that Freshpet Traded in an Efficient Market

46. The above analyses demonstrate that new and material information was quickly incorporated into Freshpet's stock price during the Class Period, as one would expect in an efficient market. Specifically, the evidence I have reviewed shows that new and material information about Freshpet was widely disseminated to the market, analyzed by market participants and traded on, causing the information to quickly become reflected in the Company's stock price. Importantly, I found no evidence of market inefficiency.

V. USING THE EVENT STUDY FRAMEWORK TO CALCULATE CLASS-WIDE DAMAGES

47. Securities cases, such as this one, generally involve allegations that defendants misled investors, either by (a) making affirmatively false or misleading statements that concealed some material information, and/or (b) omitting material information. The material information concealed or omitted is commonly referred to as the alleged truth, or relevant truth. In an efficient market, concealing an alleged truth that is materially different than the public mix of information will distort the stock price and cause it to trade at artificially inflated prices. Investors who overpaid for their shares as a result of the artificially inflated prices are then damaged when the alleged truth is disclosed (or partially disclosed) and the stock price declines as a result. Consequently, quantifying the fraud-related portion of the price decline caused by the disclosure of the alleged truth is key to quantifying Class-wide damages.

48. The event study framework is a well-accepted framework for calculating class-wide damages in class action securities cases.⁵⁵ First, the impact of the disclosure of the alleged

⁵⁵ In addition to the economic damages discussed in this section, recoverable damages are limited by the 90-day "bounce back" provision that became effective on January 1, 1996, as part of the Private Securities Litigation Reform Act of 1995. PSLRA, *see* Sec. 21D(e). This

truth (the event) on the stock price is quantified using an event study.⁵⁶ Second, this fraud-related impact is then used as the inflation from the misrepresentations concealing the alleged truth until its disclosure. Third, because each Class member purchased and/or sold their shares at market prices, after quantifying the inflation the Class members' individual damages can now be calculated based on the inflation at the time of their respective purchases and sales.

49. While the actual damages analysis may have to be modified as a result of additional information, such as information obtained through discovery or future legal rulings, and may even be modified by a jury to fit its interpretation of the evidence presented at trial, the proposed damages framework is flexible. Based on my review of Plaintiffs' allegations in this case, it is my opinion that the above methodology can be used to calculate class-wide damages in this matter as it has been used in hundreds of other similar securities class actions.

VI. CONCLUSION

50. Based on my review and analysis of the evidence in this case, including a careful consideration of the market efficiency factors discussed above, it is my opinion that the market in which Freshpet traded throughout the Class Period was impersonal, open, well-developed, and efficient in that the prices quickly responded to incorporate and reflect new, material information as it became available. Consequently, it is my opinion that it was reasonable for investors to rely on the integrity of the market price of Freshpet during the Class Period as reflecting all publicly available information.

limitation, however, simply represents a mathematical formula and does not prevent class-wide damages to be quantified.

⁵⁶ See Mitchell & Netter (1994), *supra* fn. 12. In some circumstances, the general event study methodology described in this article is further refined using fundamental valuation tools based on the premise that the present value of an investment is a reflection of its future cash flows, including the riskiness of these cash flows.

51. Furthermore, based on my experience as a damages expert and consultant in numerous other securities cases similar to this one, it is my opinion that class-wide damages can be calculated in this case using the event study damages framework explained above.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed this 29th day of June, 2018, in San Diego, California.

Respectfully submitted,


Bjorn I. Steinholt, CFA